

WHAT IS CLAIMED IS:

- 1 1. A catcher for receiving expended shell casings from a firearm
2 having an ejection port as the firearm is discharged, the catcher comprising:
3 a hollow housing having a plurality of rigid walls, wherein one of the
4 walls has an opening in communication with the ejection port when the catcher is
5 mounted to the firearm for receiving the shell casings; and
6 a lining fixed inside the rigid walls, wherein the lining comprises an
7 acoustic foam having a plurality of wedges and the wedges are configured to deflect
8 the shell casings into the catcher.
- 1 2. The catcher of claim 1 further comprising a seal attached to
2 the housing at the opening, wherein the seal is configured to provide a substantially
3 air-tight path between the ejection port and the opening.
- 1 3. The catcher of claim 1 wherein the acoustic foam is a partially-
2 open cell foam having approximately 85% cell reticulation.
- 1 4. The catcher of claim 2 wherein the seal comprises a resilient,
2 compliant material in a solid, gel-sac, closed-cell foam, or skin covered foam
3 configuration.
- 1 5. The catcher of claim 1 wherein each of the wedges has a front
2 face that is slanted away from the opening such that the casings are deflected away
3 from the opening and a rear face that is perpendicular to the planar surface of the
4 housing or slanted away from the opening such that the casings are resisted from
5 traveling back toward the opening even when bouncing inside the housing.
- 1 6. The catcher of claim 1 wherein each of the wedges has a
2 height that is equal to or greater than the diameter of the cartridge casing that is
3 captured by the catcher.

1 7. The catcher of claim 1 wherein the wedges are adjacent or
2 separated by a gap.

1 8. The catcher of claim 5 wherein the front surface of each of the
2 wedges is covered by a layer of a perforated material.

1 9. The catcher of claim 5 wherein the front surface and the rear
2 surface of each of the wedges is covered by a layer of a perforated material.

1 10. A method of reducing jamming of a firearm as a spend
2 cartridge is ejected from and ejection port into a cartridge casing catcher when the
3 firearm is discharged, the method comprising:
4 providing a hollow housing having a plurality of rigid walls, wherein
5 one of the walls has an opening in communication with the ejection port when the
6 catcher is mounted to the firearm for receiving the shell casings; and
7 fixing a lining inside the rigid walls, wherein the lining comprises an
8 acoustic foam having a plurality of wedges and the wedges are configured to deflect
9 the shell casings into the catcher.

1 11. The method of claim 10 further comprising attaching a seal
2 to the housing at the opening, wherein the seal is configured to provide a
3 substantially air-tight path between the ejection port and the opening.

1 12. The method of claim 10 wherein the acoustic foam is a
2 partially-open cell foam having approximately 85% cell reticulation.

1 13. The method of claim 11 wherein the seal comprises a resilient,
2 compliant material in a solid, gel-sac, closed-cell foam, or skin covered foam
3 configuration.

1 14. The method of claim 10 wherein each of the wedges has a
2 front face that is slanted away from the opening such that the casings are deflected
3 away from the opening and a rear face that is perpendicular to the planar surface of

4 the housing or slanted away from the opening such that the casings are resisted from
5 traveling back toward the opening even when bouncing inside the housing.

1 15. The method of claim 10 wherein each of the wedges has a
2 height that is equal to or greater than the diameter of the cartridge casing that is
3 captured by the catcher.

1 16. The method of claim 10 wherein the wedges are adjacent or
2 separated by a gap.

1 17. The method of claim 14 wherein the front surface of each of
2 the wedges is covered by a layer of a perforated material.

1 18. The method of claim 14 wherein the front surface and the rear
2 surface of each of the wedges is covered by a layer of a perforated material.

1 19. A lining for a catcher for receiving expended shell casings
2 from a firearm having an ejection port as the firearm is discharged, wherein the
3 catcher is a hollow housing having a plurality of rigid walls, and one of the walls
4 has an opening in communication with the ejection port when the catcher is mounted
5 to the firearm for receiving the shell casings, the liner comprising an acoustic foam
6 having a plurality of wedges and the wedges are configured to deflect the shell
7 casings into the catcher.

1 20. The lining of claim 19 wherein each of the wedges has a front
2 face that is slanted away from the opening such that the casings are deflected away
3 from the opening and a rear face that is perpendicular to the planar surface of the
4 housing or slanted away from the opening such that the casings are resisted from
5 traveling back toward the opening even when bouncing inside the housing.